UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/918,256	07/30/2001	Noriaki Asamoto	JP920000045	2241

7590 10/05/2005

Ryan, Mason & Lewis, LLP
Suite 205
1300 Post Road
Fairfield, CT 06430

EXAMINER	
JEAN, FRANTZ B	

ART UNIT	PAPER NUMBER
2151	

DATE MAILED: 10/05/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/918,256	ASAMOTO ET AL.	
	Examiner	Art Unit	
	Frantz B. Jean	2151	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *30 July 2001*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-18* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-18* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *12 October 2001* is/are: a)☐ accepted or b)☒ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☒ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date *2/26/04*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

This office action is in response to application for patent titled Network System, Communication Device, and Communication Routing Method, which was filed on 7/30/01. This application has a Japan foreign priority date of 7/31/00.

Claims 1-18 are presented for examination.

Information Disclosure Statement

The information disclosure statement (IDS) submitted on 02/26/04 is in compliance with the provisions of 37 CFR 1.97. Accordingly, the information disclosure statement is being considered by the examiner.

Drawings

Figures 10, 11, 12A, 12B, 13A and 13B should be designated by a legend such as --Prior Art-- because only that which is old is illustrated. See MPEP § 608.02(g). Corrected drawings in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1-18 are rejected under 35 U.S.C. 102(e) as being anticipated by Spaur et al. hereinafter "Spaur" US application Number US 6,516,192.

As per claim 1, Spaur teaches a network system for transferring data from a server to a client over either one of a two-way communication line and a one-way communication line, the two-way communication line transmitting data between the server and the client bidirectionally and the one-way communication line transmitting data in only one direction from the server to the client (fig 3 provides channel 1 and 2; one channel is a phone line for bidirectional communication and the other channel is satellite that provides two-way communication; col. 4 line 55 to col. 5 line 10), comprising: means for measuring data transfer rates of the two-way communication line and of the one-way communication line (col. 4 lines 41-54; col. 5 lines 60-65); and means for selecting one from the two-way communication line and the one-way communication line on the basis of the measured data transfer rates (col. 9 lines 37-54).

As per claim 2, Spaur teaches a network system according to claim 1, wherein one communication line from the two-way communication line and the one-way communication line is presently used for data transfer, wherein the other communication

line from the two-way communication line and the one-way communication line is not presently used for data transfer, and wherein the means for measuring data transfer rates comprises: means for requesting the server to transfer required data over the other communication line not presently used for data transfer; and means for determining total time taken to transfer required data over the communication line presently used for data transfer and for determining total time taken to transfer the required data over the communication line not presently used for data transfer (col. 10 lines 15-40; col. 12 lines 24-37).

As per claim 3, Spaur teaches a network system according to claim 2, wherein the means for determining total time taken to transfer required data over the communication line presently used for data transfer and for determining the total time taken to transfer the required data over the communication line not presently used for data transfer comprises: means for measuring transfer latency expressing a time lag between a sending of a request to the server for data transfer and a time the required data begins to be received by the client; means for determining transfer time taken to transfer the required data based on the measured transfer rate and data volume of the required data; and means for determining total time taken to transfer the required data based on the determined transfer time and the transfer latency transfer (col. 10 lines 15-40; col. 12 lines 24-37col. 1 lines 35-57; col. 6 lines 52-67).

As per claim 4, Spaur teaches a network system according to claim 1, wherein one

communication line from the two-way communication line and the one-way communication line is presently used for data transfer, wherein the other communication line from the two-way communication line and the one-way communication line is not presently used for data transfer, and wherein the means for selecting one from the two-way communication line and the one-way communication line comprises: means for comparing the two-way communication line with the one-way communication line in data transfer rate; and means for switching the communication line presently used for data transfer to the communication line not presently used for data transfer when the data transfer rate of the communication line not presently used for data transfer is faster than the data transfer rate of the communication line presently used (see col. 10 line 15 to col. 12 line 37).

As per claim 5, Spaur teaches a network system according to claim 1, wherein the one-way communication line includes a satellite communication line (see col. 6 lines 38-51).

As per claim 6, Spaur teaches a network system according to claim 1, wherein the data transfer rates are periodically measured at a predetermined time interval (col. 12 lines 24-37).

As per claim 7, Spaur teaches a communication device for receiving data from a server over either one of a two-way communication line and a one-way communication line, the two-way communication line transmitting data between a server and a client

bidirectionally and the one-way communication line transmitting data in only one direction from the server to the client (fig 3 provides channel 1 and 2; one channel is a phone line for bidirectional communication and the other channel is satellite that provides two-way communication; col. 4 line 55 to col. 5 line 10), comprising: means for measuring data transfer rates of the two-way communication line and of the one-way communication line (col. 4 lines 41-54; col. 5 lines 60-65); and means for selecting one from the two-way communication line and the one-way communication line on the basis of the measured data transfer rates (col. 9 lines 37-54).

As per claim 8, Spaur teaches communication device according to claim 7, wherein one communication line from the two-way communication line and the one-way communication line is presently used for data transfer, wherein the other communication line from the two-way communication line and the one-way communication line is not presently used for data transfer, and wherein the means for measuring data transfer rates comprises: means for requesting the server to transfer the required data over the other communication line not presently used for data transfer; and means for measuring total time taken to transfer required data over the communication line presently used for data transfer and for determining total time taken to transfer the required data over the communication line not presently used for data transfer (col. 10 lines 15-40; col. 12 lines 24-37).

As per claim 9, Spaur teaches a communication device according to claim 8, wherein

the means for measuring total time taken to transfer required data over the communication line presently used for data transfer and for determining total time taken to transfer the required data over the communication line not presently used for data transfer comprises: means for measuring transfer latency expressing a time lag between the sending of a request to the server for data transfer and the time the required data begins to be received by the client; means for determining transfer time taken to transfer the required data based on the measured transfer rate and data volume of the required data; and means for determining total time taken to transfer the required data based on the determined transfer time and the transfer latency (col. 10 lines 15-40; col. 12 lines 24-37col. 1 lines 35-57; col. 6 lines 52-67).

As per claim 10, Spaur teaches a communication device according to claim 7, wherein one communication line from the two-way communication line and the one-way communication line is presently used for data transfer, wherein the other communication line from the two-way communication line and the one-way communication line is not presently used for data transfer, wherein the means for selecting one from the two-way communication line and the one-way communication line comprises: means for comparing the two-way communication line with the one-way communication line in data transfer rate; and means for switching the communication line presently used for data transfer to the communication line not presently used when the data transfer rate of the communication line not presently used for data transfer is faster than the data transfer rate of the communication line presently used (see col. 10 line 15 to col. 12 line

37).

As per claim 11, Spaur teaches a communication device according to claim 7, wherein the one-way communication line comprises a satellite communication line (see col. 6 lines 38-51.

As per claim 12, Spaur teaches a communication device according to claim 7, wherein the data transfer rate is periodically measured at a predetermined time interval (col. 12 lines 24-37).

As per claim 13, Spaur teaches a communication routing method for selecting a communication route for transferring data from a server to a client over either one of a two-way communication line for transmitting data between the server and the client bidirectionally and a one-way communication line for transmitting data in only one direction from the server to the client (fig 3 provides channel 1 and 2; one channel is a phone line for bidirectional communication and the other channel is satellite that provides two-way communication; col. 4 line 55 to col. 5 line 10), comprising the steps of: measuring data transfer rates of the two-way communication line and the one-way communication line (col. 4 lines 41-54; col. 5 lines 60-65); and selecting one from the two-way communication line and the one-way communication line on the basis of the measured data transfer rates (col. 9 lines 37-54).

As per claim 14, Spaur teaches a communication routing method according to claim 13, wherein one communication line from the two-way communication line and the one-way communication line is presently used for data transfer, wherein the other communication line from the two-way communication line and the one-way communication line is not presently used for data transfer, and wherein the step of measuring data transfer rates comprises: requesting the server to transfer the required data over the other communication line not presently used for data transfer; and determining total time taken to transfer required data over the communication line presently used for data transfer and determining total time taken to transfer the required data over the communication line not presently used for data transfer (col. 10 lines 15-40; col. 12 lines 24-37).

As per claim 15, Spaur teaches a communication routing method according to claim 14, wherein the step of determining total time taken to transfer required data over the communication line presently used for data transfer and determining total time taken to transfer the required data over the other communication line, comprises performing the following steps for each of the communication line presently used for data transfer and communication line not presently used for data transfer: measuring transfer latency expressing a time lag between a sending of a request to the server for data transfer and a time the required data begins to be received by the client; measuring the transfer rate of the required data; determining transfer time taken to transfer the required data based on the measured transfer rate and data volume of the required data; and determining

total time taken to transfer the required data based on the determined transfer time and the transfer latency (col. 10 lines 15-40; col. 12 lines 24-37col. 1 lines 35-57; col. 6 lines 52-67).

As per claim 16. The communication routing method according to claim 13, wherein one communication line from the two-way communication line and the one-way communication line is presently used for data transfer, wherein the other communication line from the two-way communication line and the one-way communication line is not presently used for data transfer, and wherein the step of selecting one from the two-way communication line and the one-way communication line comprises: comparing the two-way communication line with the one-way communication line in data transfer rate; and switching the communication line used for data transfer to the communication line not presently used when the data transfer rate of the communication line not presently used is faster than the data transfer rate of the communication line presently used (see col. 10 line 15 to col. 12 line 37)..

As per claim 17, Spaur teaches a communication routing method according to claim 16, wherein the step of switching to the communication line not presently used comprises: requesting the server to transfer data over the faster communication line not presently used, in parallel with the data transfer over the slower communication line presently used; and canceling data transfer over the slower communication line at the point that total data transfer volume over the faster communication line catches up with total data

transfer volume over the slower communication line (col. 8 lines 6-63).

As per claim 18, Spaur teaches a communication routing method according to claim 13, wherein the data transfer rates are measured periodically at a predetermined time interval (col. 12 lines 24-37).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Frantz B. Jean whose telephone number is 571-272-3937. The examiner can normally be reached on 8:30-6:00 M-f.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Zarni Maung can be reached on 571 272 3939. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

FRANTZ B. JEAN
PRIMARY EXAMINER

Frantz B. Jean